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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/507,768

02/18/2000

Sergio Lazzarotto

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EXAMINER
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LEE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 05/06/2004

19

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/507,768

Applicant(s)

LAZZAROTTO ET AL.

Examiner

Timothy Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 17, 19-29 and 32-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 17, 19-29 and 32-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings correction made on August 4, 2003 is approved by the Examiner.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 8, 9, 10, 17, 19, 20, 22-26, 27, 28, 29, 32-34, 38, and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Shaheen et al. (US 6,374,109)

4. Regarding claims 1, 19, 33, and 34, Shaheen et al. discloses a wireless communication system that supports operation of multiple frequency bands and multiple protocols. As shown in Fig. 1A, each of the base stations 106 and 108 includes multiple antennas. The network facilitates communication amount the subscribing units 103, 105, and 107 in connection with the base stations 106 and 108. The multiple antennas indicate that the base stations 106 and 108 operation on multiple frequency bands and operate according to multiple operating protocols (receiving an output signal from one of a first wireless communication device operating in a first frequency range or a second wireless communication device operating in a second frequency range). See col. 5, lines 7-28. Based on broadcast messages from the base stations, subscriber units 103, 105, and 107 may simply act upon the information received in the message to send information to the base station in that particular frequency and protocol. See col. 6, lines 8-10.

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For example, base station 106 may support operation within the 800 MHz frequency band and within the 1900 MHz frequency band. As for protocol, the base station might be able to support AMPS in the 800 MHz range and support CDMA in the 1900 MHz range. See at least col. 7, lines 29-60. The subscriber unit is then allowed to operate according to a selected frequency band and protocol, where further interaction between the subscriber unit and the base station is needed to initiate operation. See at least col. 9, lines 10-27. Suppose that subscriber unit 103 operates in the 800 MHz frequency range using AMPS and subscriber unit 105 operates in the 1900 MHz range using CDMA from Fig. 1A. Both units will be able to communicate with base station 106, which is equipped to handle both frequency ranges and protocols. Thus, the base station 106 will receive signals from both subscriber units 103 and 105 (receive the output signal at a processor). Inherently, to be able to handle both protocols in both frequency ranges, the base station 106 must be able to determine which subscriber unit sent which signal, where the information in the CDMA signal will be different from the information in the AMPS signal (identifying whether the first or second device sent the signal based on information in the signal). It is also inherent that the base station 106 will implement the correct protocol in response to a signal from either subscriber unit (implementing a protocol that corresponds to the identified communication device).

5. Regarding claim 33 more specifically, both the AMPS and CDMA protocols use packets, so it is inherent that the identification of the signal will be based on information included in the data packets because this is the only way that the base station can distinguish between the two signals.

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6. Regarding claims 2 and 22, the lower frequency range can be considered the “baseband signal” while the signal in the higher frequency range can be considered the “broadband signal.”

7. Regarding claims 3-6 and 23-26, as mentioned above, one of the frequency ranges mentioned was in the 800 MHz range, and the other band mentioned was in the 1.9 GHz range (first frequency from about 800 MHz to 1000 MHz; second frequency range from 1.8 GHz to 2.0 GHz).

8. Regarding claims 8, 9, 27, 28, and 38, it is inherent that the CDMA signal must be decoded and formatted on the output signal. Also, CDMA is a type of MAC protocol, so the information being decoded will inherently be MAC information.

9. Regarding claims 10 and 29, it is inherent in CDMA (and similar transmission protocols) that there will be error checking capabilities to make sure that damages data is not passed through the system.

10. Regarding claim 17, the base station is “hardware” for the purposes of implementing the method.

11. Regarding claim 20, it is inherent that the base station contains memory to store data.

12. Regarding claim 32, it is inherent that subscriber units have processors.

13. Regarding claim 47, in the system of Shaheen et al., the base station will be able to determine the “device type” through the data signal it receives from the subscriber stations. This is inherent with the step of determining which device output which signal.

*Claim Rejections - 35 USC § 103*

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 7, 21, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaheen et al.

16. Regarding claims 7 and 21, Shaheen et al. does not expressly disclose that the processor inside the base station 106 two different processes for handling the first and second output processes, respectively. However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have two different processes in the processor for handling the different signals from the two devices. One would have been motivated to do this because the processor could be optimized to handle the two different types of protocols if the processors were separated.

17. Regarding claim 35, Shaheen et al. does not expressly disclose that a third port for receiving communication information from a third wireless device operating in the first frequency range. However, it would have been obvious to a person of ordinary skill in the art to have added a third antenna (or port) to the base station 106 of Shaheen et al.. One would have been motivated to do this because it would allow the base station to expand its ability to handle calls. Thus, it would be able to handle more connections.

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18. Claims 36, 37, 39, 40-46, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaheen et al. in view of Junod et al. (US 5,854,621) and in light of the rejection to claims 47 and 35.

19. Regarding claims 36, 48, and 49, Shaheen et al. does not expressly disclose using a wireless keyboard and a wireless mouse with the subscriber units and sending the information from the keyboard and the mouse to the base station. Junod et al. discloses using a wireless mouse and also mentions the possibility of a wireless keyboard. See col. 4, lines 9-30. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use keyboards and mice input devices to the subscriber units in Shaheen et al. and send the information from the keyboard/mouse to the respective antennas/ports at the base station. One would have been motivated to do this because many subscriber devices, like cell phones, can handle data beyond voice that needs a mouse or keyboard so that the user can interact with the data. In some circumstances, it would be easier to interact with the data by attaching a keyboard or a mouse to the subscriber unit—for example, using the keypad on a phone can be very cumbersome when it comes to interacting with data. The information input from the keyboard or mouse can then be sent to the proper port at the base station.

20. Regarding claim 49 more specifically, neither Shaheen et al. nor Junod et al. expressly discloses that the output data will be cursor position data upon discovering that the wireless device is a mouse, but it would have been obvious to implement the corresponding protocol to include formatting payload data in the output signal as cursor position data. One would have been motivated to do this because that would be the correct type of data given that the device is a mouse because cursor positioning is the only purpose that a mouse serves.

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21. Regarding claim 37, the base station is connected to the MSC, which can be considered the "host system." See col. 5, lines 5-10.

22. Regarding claim 39, as mentioned previously, it is inherent that the base station will be able to determine which device the signals originated from. It is inherent that there are pre-stored instructions in the base station processor for making this determination.

23. Regarding claim 40, the ports, antennas, and the processor are inherently included in the base station.

24. Regarding claim 41, as mentioned previously, the first and second communication devices must contain ports and processors in order to communicate with the master device.

25. Regarding claim 42, as mentioned previously, the lower frequency range can be considered the "baseband signal" while the signal in the higher frequency range can be considered the "broadband signal."

26. Regarding claims 43-46, as mentioned above, one of the frequency ranges mentioned was in the 800 MHz range, and the other band mentioned was in the 1.9 GHz range (first frequency from about 800 MHz to 1000 MHz; second frequency range from 1.8 GHz to 2 GHz).

### ***Response to Arguments***

27. Applicant's arguments with respect to claims 1-10, 17, 19-29 and 32-46 have been considered but are moot in view of the new ground(s) of rejection.



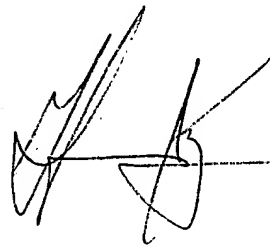
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Lee whose telephone number is (703)305-7349. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703)305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TLL  
Timothy Lee  
April 27, 2004

A handwritten signature in black ink, appearing to read 'Hassan Kizou', with a horizontal line extending to the right.

HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600